



Docket No. 274815US3PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Sumito HASHIMOTO, et al.

SERIAL NO: 10/542,637

GAU:

FILED: July 19, 2005

EXAMINER:

FOR: SEAL STRUCTURE OF SOLID FEEDING SCREW, AND METHOD OF MANUFACTURING REDUCED METAL USING THE SEAL STRUCTURE

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
274815US3PCTSERIAL NO.
10/542,637

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT
Sumito HASHIMOTO, et al.FILING DATE
July 19, 2005

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	6,251,161	06/26/01	TATEISHI, Masataka et al.			
	AB	6,500,381	12/31/02	HARADA, Takeo			
	AC	6,660,221	12/09/03	URABE, Yoshihiro et al. (Equivalent of JP 2001-304766)			
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	
	AX	
	AY	
	AZ	

☐ Additional References sheet(s) attached

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



U.S. PCT Application Serial No.: 10/542,637
Docket No.: 274815US3PCT

STATEMENT OF RELEVANCY

1) References __ have been cited in the International Search Report. Copies of these references are being submitted herewith only when not automatically provided by the International Searching Authority.

2) Reference __ have been cited in the corresponding _____ Search Report. A copy of this reference is being submitted herewith.

3) References __ are discussed in the specification. A copy of these references is being submitted here with.

4) References AA-AC are additional prior art known to Applicant. A copy of these references is being submitted herewith.

AA US 6,251,161

A moving hearth reducing furnace is operated, while a gap is provided between a discharging apparatus for discharging reduced iron agglomerates from the moving hearth reducing furnace and the surface of the moving hearth. The gap prevents squeezing metallic iron powder formed by reduction of powder included in iron oxide agglomerates into the surface of the moving hearth and the formation of an iron sheet. An iron oxide layer formed on the moving hearth during the operation can be periodically scraped off without shutdown of the furnace.

AB US 6,500,381

Disclosed is a method for supplying a granular raw material for reduced iron in which when the granular raw material is fed into a hopper and from there supplied onto a hearth of a movable hearth furnace through a material supplying device, the material supplying device is moved vertically to thereby adjust the gap between the lower end of the material supplying device and the hearth. Thus, the amount of granular raw material supplied onto the hearth of the movable hearth furnace is adjustable. Further, granular raw material is dispersed in the hearth width direction over the entire surface of the hearth of the movable hearth furnace with minimal breakage or pulverization of the granular raw material for reduced iron and leveled by a spiral vane rotated on the downstream side, with respect to a hearth moving direction, of a material discharge outlet of the material supplying device.

STATEMENT OF RELEVANCY

AC US 6,660,221 (Corresponding Japanese Pat. JP-A-2001-304766)

A rotary hearth furnace is provided to simplify detachment and assembly operations of a reduced iron discharging screw. At both side walls of an insulating housing 2]a constituting in part of a furnace body 2 of rotary hearth furnace 1 are installed through-holes which a spiral blade 42 of a reduced iron discharging screw 4 can pass through, each of the through-holes is closed by an inner hatch member 8 and an outer hatch member 9 which are externally mounted in a removable fashion to a rotary shaft 41 of the reduced iron discharging screw 4, an inner screw supporting device 10 is installed in the outside at an inner periphery side of the hearth 3 as well as an outer screw supporting device 20 is installed in the outside at an outer periphery side of the hearth 3. The reduced iron discharging screw 4 is detached from the furnace body 2 via the through-holes and assembled to the furnace body 2 via the through-holes by using the inner screw supporting device 10 and the outer screw supporting device 20.